### DGDC Meeting Minutes November 13, 2013

#### Attendance List:

Bruce Allen.....DelDOT Roger Barlow .....USGS Stephen Bayer.....OSPC Stephanie Belinski......DHSS/DPH Bryan Bloch ......DNREC Kim Cloud......DTI Lauren Devore.....DelDOT Avery Dunn ......DNREC Jim Galvin ......Kent MPA Jay Gerner ......DelDOT Jeremy Gibb.....City of Dover Alice Guerrant ......DHCA Danielle Lamborn ...... Kent County Kristin Maiden.....Nemours Thomas Matich.....City of Milford Ben Mearns.....UD -RDMS Miriam Pomilio.....OSPC Sandy Schenck ......DGS Rick Sherwood ......DEMA Eddie Starr ...... Pictometry Rick Steffers.....City of Wilmington Deborah Sullivan ......DNREC Josh Thomas.....DelDOT Seth Van Aken ..... ESRI Lillian Wang......DGS Carl Yetter.....Coastal Programs George Yocher.....DHSS/DPH

### **Welcome & Introductions**

Miriam Pomilio started the meeting at 9:07 am. She welcomed everyone to the meeting and introductions were made.

### **Approval of August 2013 Meeting Minutes**

Kim Cloud made a motion to approve <u>August 7, 2013</u> meeting minutes (PDF). Carl Yetter seconded the motion and it passed, unanimously.

### **Regional GIS Conferences**

NSGIC (National States Geographic Information Council) — October 27-31, 2013 - Both Miriam Pomilio and Kim Cloud attended NSGIC in Kansas City Missouri. Miriam reported it was an intense four day conference. She reported on the main highlights from the meetings. One topic of interest was Unmanned Aerial Systems (UAV's). UAV's are being deployed for small area imagery and LiDAR capture. This

topic had a range of use and acceptance. There are some states which give permission to shoot down UAV's, while others are utilizing them for capturing small area data for either disasters or special projects. The use of these UAV's is under review by FAA and they are working on rules and regulations. There is a lot of controversy over their use and privacy of land owners. Some vendors are using these drones to capture aerial imagery. The state of Washington is using UAV's for environmental work.

Miriam reported there are many work groups and committees through NSGIC which Delaware representation should be stronger (MAP21, NG911, Geospatial Preparedness, Addressing and others). This national organization looks to provide the states not only with a voice towards national legislation but actively participate in guiding the implementation of many programs. It's valuable to hear how other states are addressing issues and implementing programs, you can learn a lot from these workgroups. Miriam will contact various agencies to get them more involved. You do not need to have a NSGIC membership to participate on committees and workgroups.

During the NSGIC conference Miriam attended an Addressing Committee meeting. There is an initiative underway to try and move the data collected on addressing outside the Census Bureau so that the addressing data could be shared to states. It is hoped that Census would become a consumer of the data rather than the keeper of the data, therefore making it exempt from Title 13.

Miriam spoke to several folks from the Maryland State Highway Administration about their efforts to work on with their surrounding states through a Steering Committee to coordinate transportation layers. Maryland has been in contact with DelDOT and invited them to participate in the steering



committee meetings. Maryland hopes to implement ESRI's Roads & Highways model in the next year. DelDOT is considering the same option as well. There is a meeting in the next few weeks to kick off this effort.

There were several presentations at NSGIC regarding ArcGIS Online (AGOL) implementation by several states. In addition there was a special workshop, hosted by ESRI, on the last day to answer questions and show detailed examples of how the states of Washington and Oregon are implementing their AGOL for Organizations. Miriam and Kim learned a lot from these sessions and will be reaching out to Washington and Oregon regarding best practices, training requirements, as well as Terms of Use agreements they are implementing. As Delaware begins to roll out the Statewide AGOL for Organizations, we'll need to implement similar items.

Kim Cloud added that there is a lot of work being done on First Net and that Delaware should be more involved. She will be reaching out to Matt Laick from Homeland Security to discuss.

MD Water monitoring Conference - December 5, 2013 - Linthicum, MD

<u>ESRI MUC</u> - December 10-11, 2013, Baltimore, MD. Seth Van Aken from ESRI noted that the Keynote speaker this year will be Chris Cappelli and they have a full agenda for the conference and several excellent pre-conference training opportunities. Rick Steffers from the City of Wilmington noted that he is giving a presentation and will be at the conference.

URISA Mid-Atlantic - Data Sharing and Transparency - Dec. 10, 2013, - Rutgers, Bordentown, NJ

<u>Delaware eDUG Meeting</u> – January 15, 2014, Dover, DE. Danielle indicated the committee for eDUG is looking for input for content. Many ideas were discussed including: Geocoding Services (ArcGIS Online), How to access services, ArcGIS Online and permissions, Workflow for desktop repository (Kim Cloud), Workgroup from Maryland, Desktop side of ArcGIS – tracking progress between agencies on projects (ESRI Workflow manager). Josh Thomas asked what ArcGIS for Professionals is about. Based on this input, the eDUG committee will put together an agenda for the January meeting.

<u>TUGIS</u> – March 18, 2014 - Towson, MD – Call for presentations has been released. It will be a one day event again this year.

PA GIS Conference – May 5-7, 2014 – State College, PA

<u>Delmarva GIS 2014</u> – Scheduled for May 8, 2014 at Heritage Shores in Bridgeville, DE. Miriam Pomilio reported on behalf of Sandy Janowski, the conference chair, that they have released the Call for Presentations. Our Keynote speaker this year will be Barney Krucoff, the Maryland Geographic Information Officer. There will not be a post-conference activity this year. However, there is a golf event along with 4 pre-conference workshops scheduled for the May 7, 2014.

#### **Delaware Project Updates**

#### **Central Data Consolidation Proof-Of-Concept**

Miriam Pomilio & Kim Cloud provided a presentation in September to the Cabinet Committee on State Planning Issues (CCSPI) regarding the status of the Proof-Of-Concept (POC) project. Kim and Miriam did this same presentation at this DGDC meeting. It is attached to the end of these meeting minutes.



The POC has been completed and there are approximately 25 data sets available as web services and many as feature services. The State AGOL for Organizations has been set up and two Story Maps were created for this POC effort: Trails & Pathways and Sea Level Rise Inundation. You can view these story maps through the State AGOL organization at: <a href="http://delaware.maps.arcgis.com">http://delaware.maps.arcgis.com</a>. The business case for full production of the eGIS project is in process at DTI. It is hoped that within the year that the production system will be available. Sandy Schenck of DGS asked if there would be a timestamp on the data as its updated so that users would know there is a new version. There is a time/date stamp on the services listed.

Josh Thomas then presented on DelDOT's AGOL initiatives and the INFORM project. DelDOT has a separate AGOL for Organization. Josh demonstrated how he was able to set up a group within DelDOT's AGOL account to share content from the State to DelDOT's AGOL. This allows agencies to share web apps and web maps across organizations.

#### **Land Use Land Cover Data for 2012**

Miriam reported the contract was just executed this week with Aerial Information Systems (AIS) in Redlands California to update the Land Use Land Cover dataset using the 2012 imagery. AIS specializes in LULC and won the contract based on their experience as well as their inclusion of updating some errors from the 2007 LULC in that data set and providing a revised 2007 LULC and a new 2012 LULC for the entire state. The estimated delivery date for completion of this project is June 2014.

#### **Dedicated Future Funding Plan for Data Acquisition**

Miriam reported that OSPC would like to provide information regarding this initiative to the new liaison in the Governor's office.

#### Sandy Relief LiDAR Grant

Roger Barlow gave an update on this initiative. The flights should be starting in a few weeks once the final leaves drop. There was a question a week or so ago regarding whether or not there would be tide coordinated LiDAR collected. Roger indicated that there would be, but that NOAA is the agency collecting that data including bathymetric lines over the ocean at 20% of low tide. New Castle County was apparently left off of this project and Roger said he would look further into that and report back. He also indicated that the coastal swath only included Kent County; again he was going to investigate and report back. The NOAA contract has already begun and flights for that will be soon.

### **Addressing Initiative**

Miriam reported that IPA is in the final process of publication for this document. It was sent out in September for review to the agencies involved in the workshops. The document should be finalized by the Thanksgiving holiday. The report indicates that we need to implement a model for statewide addressing along with our eGIS solution. The goal is to create an addressing layer that can be used in a Delaware specific geocoding application. It is recommended that Delaware develop a geocoder and provide that service to all agencies. It further recommends an address verification system be developed to assist agencies when they collect address information from their clients/facilities, etc.

### **GIS Day Field Trip**

Miriam reported that GIS Day is next week and there are a little over 250 students attending with lots of volunteers from the GIS community in Delaware. The event will be at the Dover Air Mobility Command



Museum with 16 stations, including the Earth Balloon. Sponsorship is important for this event and there were four sponsors this year which pays for the Earth Balloon and supplies.

### **Federal Update**

**USGS** – Roger Barlow reported the following items on behalf of the Federal agencies:

- The NAIP imagery is completed and now available for download.
- The Delaware Valley Regional Planning Commission met regarding upcoming flight of Imagery for the region and requesting intergovernmental funding for 2015. If Delaware is interested we should coordinate and buy-in.
- USGS will no longer be able to support the Urban Area Imagery after April 2014. This is due to cut backs from sequestration.
- Roger relayed that Kevin Holmes from Census suggested a coordinated group presentation replace the individual updates from the Federal agencies at future DGDC meetings.

### **Academia Update**

<u>University of Delaware</u> – Ben Mearns from UD reported on the recent HAZUS training that was hosted by UD and presented by FEMA region III for Delaware coordination. Silvana Croop is the coordinator within DelDOT for HAZUS. This workshop was successful and provided the agencies (county, municipal and state) the opportunity to learn about HAZUS and begin efforts to coordinate local authoritative data for Delaware's use in HAZUS.

Ben further indicated that the UD is providing upcoming training in Temporal GIS and Spatial Databases.

#### **Future of DGDC & DGDC Executive Council**

Miriam opened this topic by explaining that the DGDC and the DGDC Executive Council (EC) are formalized in legislation, so any changes to legislation may be difficult. However, because the executive members have not participated in the Executive Council and delegated down to their GIS technicians that EC is not working as it should. Therefore Miriam feels the DGDC should explore ways to improve or repair the hierarchy to make it function. The legislation allows the Executive Council to "meet as needed", so the fact that they have not met formally in quite some time is not a violation of the charter. Miriam further noted that she has provided the Executive Council members updates, via email, periodically. An Accomplishments report for the last year was sent to the EC to keep them informed of the initiatives that have been undertaken and progress towards the goals of the DGDC. Miriam offered if it would be beneficial to establish a Technical Advisory Committee (TAC) as a means of formulating ideas into succinct topics for decisions at the Executive Council level.

Miriam then opened the discussion up to the group for input, ideas, and comments on ways to improve or make the existing DGDC structure work better.

Jim Galvin of the Dover/Kent MPO indicated that many organizations use TAC's for this very reason. If DGDC were to do this it should be made up of folks from the DGDC core group. Bruce Allen from DelDOT agreed. There should be prescribed members based on the topic of interest and their knowledge. Kim Cloud suggested a core group of folks that are the TAC and they opt to bring in experts as needed for a topic.



Bruce Allen noted that the DGDC has been doing a good job even though the EC has not been meeting. A lot of projects have been undertaken and funding has been garnered to do these projects.

Sandy Schenck felt there is a basic question: Does Delaware need a Geographic Information Officer (GIO) or not? If we do need a GIO then we need to tackle the governance issue. If we don't need a GIO then we should keep working the way we have.

Carl Yetter felt we are doing a good job of data sharing and coordination at this point, but we are on the cusp of a better way of sharing data. We should continue with that, but that it isn't productive to keep rounding up money for data projects as they arise, it would be best to have the funds available when it was time for an update. Carl felt it would be best to have someone whose job is to coordinate the funding and data collection.

This path for a GIO has been exhausted and does not appear to have enough support at the higher levels to make it happen at this time. Therefore we should fix what is in place at this point.

Kim Cloud indicated that we have several subcommittees to work on special areas. However, they haven't been held to task so we should re-evaluate each committee and see if we can reorganize and revitalize them into a TAC or a series of subcommittees.

Jim Galvin noted that the Accomplishments document sent to the EC was an excellent way of keeping them updated. It was suggested that the DGDC provide the EC with quarterly updates of the initiatives and progress.

ACTION ITEM: Re-Evaluate each of the Subcommittees. Establish new membership as needed, revitalize them. Also look at establishing a TAC for DGDC.

### **Open Comment Period**

Kim Cloud indicated that as chair of the Technical Subcommittee, she thinks it's time to re-vitalize it since we've just launched the state AGOL instance. This subcommittee could look at a geocoding service, use of AGOL credits, and AGOL training and roll out. Josh Thomas of DelDOT offered to assist as needed.

### **Next Meeting**

The next DGDC meeting is anticipated in February 2014. Miriam will send out dates for all of 2014 once a location is confirmed.

#### **Adjournment**

Carl Yetter made a motion to adjourn the meeting and it was seconded by Debbie Sullivan. The meeting was adjourned at 12:07 pm.

# State of Delaware

Enterprise GIS Proof of Concept Kim Cloud, DTI Miriam Pomilio, OSPC

## Agenda

- Overview
- Activities
- Proof of Concept
- Map Stories
- Shared Services
- Conclusion

### **Activities**

- Activity 1: Sys. Arch. Design & Data Mgmt. Support
- Activity 2: ArcGIS Online Subscription Support
- Activity 3: Implementation of Governance\*
- Activity 4: Modernize DE Geographic Data Committee\*

<sup>\*</sup>Not yet estimated or implemented

### **Activities Status**

- Activity 1: Sys. Arch. Design & Data Mgmt. Support
  100% Complete
- Activity 2: ArcGIS Online Subscription Support
  90% Complete

## **Proof of Concept**

- Activity 1: Sys. Arch. Design & Data Mgmt. Support
  - Identified target POC architecture
  - Identified target full implementation architecture
  - Identified target ~25 data sets for POC
  - Evaluated DataMIL & Geospatial Data Exchange
  - Designed and Built Database
  - Loaded POC data
  - Set up replication for POC data

## **Proof of Concept**

- Activity 2: ArcGIS Online Subscription Support
  - Set up ArcGIS for Server
  - Configured ArcGIS Online for Organizations site
  - Created map story(s) and data services

## **Participants**

- Joint effort with several key stakeholders:
  - DNREC Environmental & Recreational data
  - DSHS Evacuation routes
  - DelDOT Transportation data
  - Office of State Planning Commission Framework data
  - Sussex County Parcels

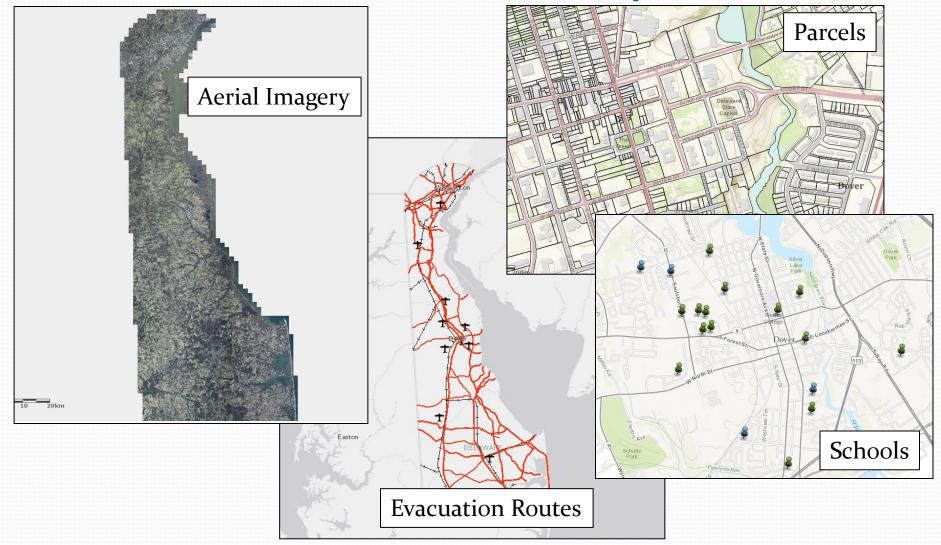
### Data

- Some of the key data available in the POC
  - Centerline
  - Evacuation routes
  - Parcel data for New Castle, Kent & Sussex Counties
  - State contour lines
  - State & County Boundaries
  - Landuse/Landcover
  - Public & private schools
  - NHD Polygons & lines
  - Shared Pathways
  - and more...

### **Shared Services**

- #1 issue for the State redundant data, not shared
- Proof of Concept database provides centralized, shared storage of data
- Shared services created for each of the datasets included in the POC
- Centralized services virtually eliminate the need for local copies of data
- ArcGIS Online exposes shared services for State of DE POC community to use

# **Shared Services Examples**



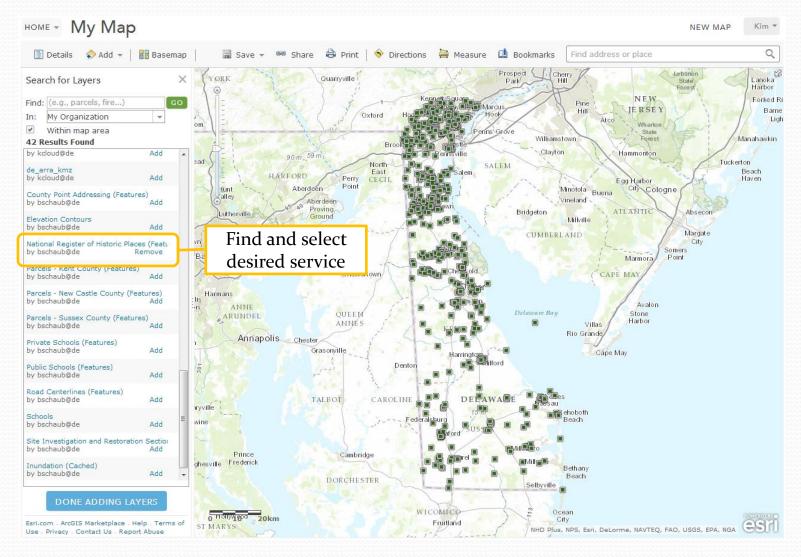
### State of DE ArcGIS Online Site

- State of DE ArcGIS Online Site
  - Online, publically available portal for searching State of DE specific content
  - Can be used by internal clients to discover and use shared services
  - Can be used by the public to discover and use shared services

### State of DE ArcGIS Online Site



### State of DE ArcGIS Online Site

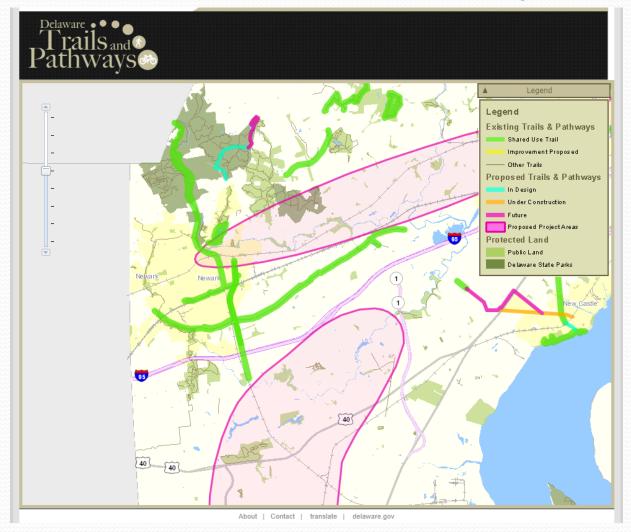


### Map Story

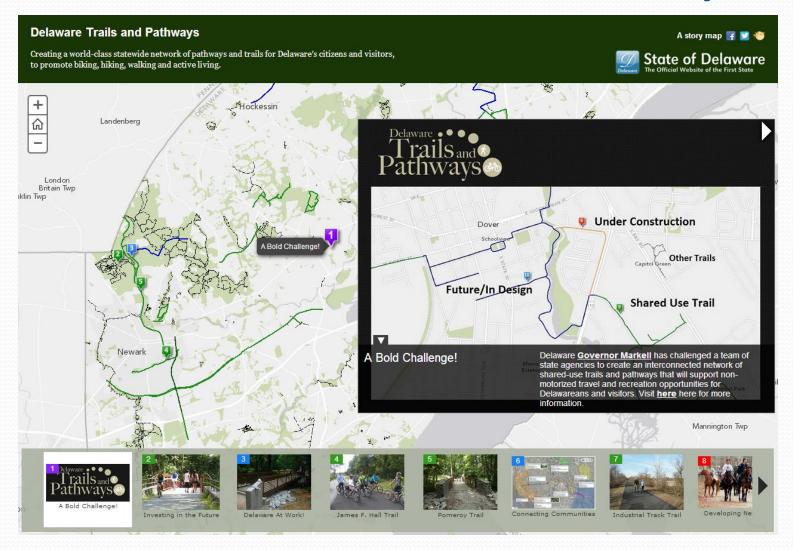
- Story Maps provide an easy interactive way to provide your data or information to the public.
- They inform, educate, and inspire people.
- Easy to use Templates are available to drop your map and information into and serve via the web to your customers.
- Two story maps created during the POC:
  - Trails and Pathways Initiative
  - Sea Level Rise Delaware Inundation Map

## State of DE Trails & Pathways

Existing
 Delaware
 Trails and
 Pathways
 Map:



# State of DE Trails & Pathways



## **DE Inundation Map**

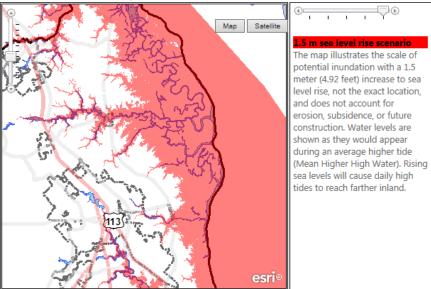
Existing Sea Level Rise Inundation Map:

### DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENTAL CONTROL (DNREC)



#### Sea Level Rise Inundation Maps

The rising and spreading of water over normally dry land is referred to as inundation. Scientists from Delaware Coastal Programs used a simple model to develop maps to show the possible impacts of inundation based on various Sea Level Rise scenarios for Delaware's waterways and the land that surrounds them (watersheds). These maps reflect the filling of these watersheds at constant elevations also referred to as "Bath Tub" modeling. In other words, the maps show the water levels rising in the watersheds similar to the "filling of a bathtub". For more information click <a href="here">here</a>.



These maps are a representation of inundation based on local Mean Higher High Water (MHHW) which is the average highest high tide line in tidal areas. Inundation is assumed to occur at a constant elevation and no other factors other than tidal elevation are used to determine water levels. The land surface elevations are based on data with an average accuracy of 15 cm (6 inches); however, areas of heavy vegetation may have errors exceeding that amount. The Delaware Coastal Programs makes no warranty and promotes no other use of these maps other than as a preliminary planning tool.

## DE Inundation Map

#### Sea Level Rise Inundation

Sea Level Rise Scenarios for the State of Delaware

The rising and spreading of water over normally dry land is referred to as inundation. Scientists from Delaware Coastal Programs used a simple model to develop a map to show the possible impacts of inundation based on various sea level rise scenarios for Delaware's waterways and the land that surrounds them (watersheds). This map reflects the filling of these watersheds at constant elevations also referred to as 'Bath Tub' modeling. In other words, the map shows the water levels rising in the watersheds similar to the filling of a bathtub'. For more information click here.

#### Legend

#### Sea Level Rise Scenarios

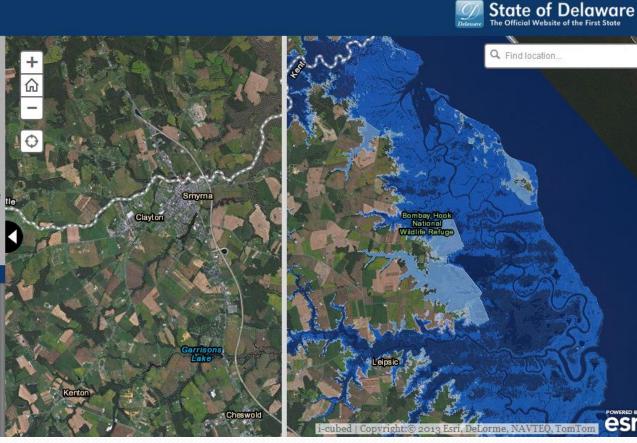
Mean Higher High Water (MHHW)

0.5 Meters

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1.0 Meter

1.5 Meters



A story map 👍 🗾 🤴

### Live Demo

State of Delaware Trails & Pathways

• Sea Level Rise Inundation

## Wrap-Up

- Current Status
- Questions
- Next Steps